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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/046,578	01/16/2002	Nobuyuki Nakajima	03500.016102	4947

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EXAMINER

GARCIA, GABRIEL I

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 09/21/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/046,578	NAKAJIMA ET AL.	
	Examiner	Art Unit	
	Gabriel I. Garcia	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☐ Claim(s) ____ is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-5 and 10-16 is/are allowed.
- 6) ☒ Claim(s) 6-9, 17 and 18 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 January 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|--|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____ |

Part III DETAILED ACTION

Claim Rejections - 35 USC § 101

1. Claims 18-19 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. Claims 18-19 are drawn to functional descriptive material NOT claimed as residing on a computer readable medium. MPEP 2106.IV.B.1(a) (functional Descriptive Material) states:

“Data structures not claimed as embodied in a computer –readable medium are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer.”

“Such claimed data structure do not define any structural or functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure’s functionality to be realized.”

Claims 18-19, while defining a program for calibration does not define a “computer-readable medium” and is thus non-statutory for that reasons. A computer program can range from paper on which the program is written, to a program simply contemplated and memorized by a person. The examiner suggests amending the claim to embody on “**computer-readable medium**” in order to make the claim statutory.

“In contrast, a claimed computer-readable medium encoded with the data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure’s functionality to be realized, and is thus statutory.”-MPEP 2106.IV.B1(a).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 6-9,17, 19 and 20 are rejected under 35 U.S.C. 102(e) as being anticipated by Yamaguchi (6,788,431).

With regard to claim 6, Yamaguchi teaches an image processing method for generating data for print output, comprising: selection step for selecting calibration information (e.g. col. 3, lines 1-50) corresponding to one of a predetermined number of binarizing processing conditions fewer than plural binarizing processing conditions (e.g. col. 3, line 1-50, the different characteristics implemented) usable for generating the data for print output, in accordance with a binarizing processing condition set in binarizing processing (e.g. col. 3, lines 1-50 and col. 9, lines 1-7); a correction step for correcting print output characteristics the data by using the selected calibration information (see fig.4, col. 9, lines 1-7, and claims 1-3); a binarizing step for effecting binarizing processing of the data under the binarizing processing condition corresponding to the selected calibration information (see fig. 4, the binarizing is performed by the item 130, see claims 1-3).

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With regard to claim 7, Yamaguchi teaches a method according to claim 6, wherein the binarizing processing is a dither method (e.g. col. 3, lines 1-50, the dithering or halftoning).

With regard to claim 8, Yamaguchi teaches wherein the plural binarizing processings effect binarizing processing on the basis of different halftone patterns (e.g. col. 3, lines 1-50).

With regard to claim 9, Yamaguchi teaches wherein the calibration information is information of gamma correction table (see abstract).

With regard to claims 17,19 and 20, the limitations of claims 17,19 and 20 are covered by the limitations of claim 6 above.

Conclusion

3. Claims 1-5, and 10-16 are being allowed over the prior art of record. The prior art of record teaches different ways of calibrating a printer, but the prior art of record fails to teach or suggest (in combination with other features in the claim(s)) a calibration method, apparatus or computer program that generates correction data for predetermined number of binarizing processing condition on the basis of the first print output characteristics information and the second print output characteristics information, and acquiring second calibration information for the predetermined number of binarizing processing conditions by correcting the first calibration information on the basis of the generated correction data, as claimed in the independent claims

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4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Nakajima (6,909,814) teaches an image processing method of generating conversion data for a scanner and calibration method.

Wen et al. (6,775,029) teaches a method for efficient calibration of printing devices.

Nakajima et al. (6,616,262) teaches an image processing performing printer calibration.

Shono (6,603,566) teaches an image forming apparatus to stabilize image quality.

Wang et al. (6,435,654) teaches a color calibration for digital halftoning.

Burkes et al. (6,349,185) teaches methods and apparatus for calibrating inline color laser printers.

Samworth (5,953,498) teaches a nonlinear calibration of output devices.

Lin et al. (5,760,920) teaches a system and method for generating calibrated dither matrices.

Inoue (5,731,884) teaches a method of an apparatus for outputting halftone dot image.

Knox et al. (5,649,073) teaches an automatic calibration of halftones.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gabriel I. Garcia whose telephone number is (571) 272-7434. The Examiner can normally be reached Monday-Thursday from 7:30 AM-6:00 PM. The fax phone number for this group is (571) 273-8300.

On July 15, 2005, the Central FAX Number will change to 571-273-8300. This new Central FAX Number is the result of relocating the Central FAX server to the Office's Alexandria, Virginia campus.

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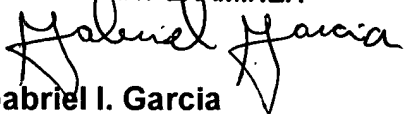
Most facsimile-transmitted patent application related correspondence is required to be sent to the Central FAX Number. To give customers time to adjust to the new Central FAX Number, faxes sent to the old number (703-872-9306) will be routed to the new number until September 15, 2005.

After September 15, 2005, the old number will no longer be in service and 571-273-8300 will be the only facsimile number recognized for "centralized delivery".

CENTRALIZED DELIVERY POLICY: For patent related correspondence, hand carry deliveries must be made to the Customer Service Window (now located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314), and facsimile transmissions must be sent to the Central FAX number, unless an exception applies. For example, if the examiner has rejected claims in a regular U.S. patent application, and the reply to the examiner's Office action is desired to be transmitted by facsimile rather than mailed, the reply must be sent to the Central FAX Number.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (571) 272-2600.

GABRIEL GARCIA
PRIMARY EXAMINER



Gabriel I. Garcia
Primary Examiner
September 19, 2005